The METimage L2 test data is generated using the in-house Multi Satellite Prototype Processor (MSPS) as an example for nominal Near Real Time (NRT) global/regional processing of Visible and Infrared Imaging (VII) L2 products. This data is generated using the simulated METimage radiances, geometry, and geolocation data generated at EUMETSAT (METimage L1B test data). Another input is the VII L2 Cloud Mask products provided in this test data release package. The data in netCDF format and the Product Format Specification document (PFS V3E) are made available with this distribution. The PFS gives an overview of all the L2 products, detailed format description including meta data and the size of the data per orbit.

The L2 product contains:

1. Total Precipitable Water product (from visible/near-IR observations);
2. Total Precipitable Water product (IR observations);
3. cloud optical and microphysical properties, cloud Liquid/Ice Water Path (LWP, IWP) and Volcanic Ash (VA) product;
4. Atmospheric Motion Vector (AMV) product.

There is also METimage L2 Cloudmask test data generated using the in-house Multi Satellite Prototype Processor (MSPS) available along with this distribution. This data is generated using the simulated METimage radiances, geometry, and geolocation data generated at EUMETSAT (METimage L1B test data). The data in netCDF format and the Product Format Specification document (PFS V3E) are available with this test data release package. This PFS gives an overview of all the L2 Cloud Mask products, detailed format description including meta data and the size of the data per orbit.

The METimage L2 Test data set covers 1/4 of two successive orbits (as illustrated in Figure 1) and consists of 12 granules. Each granule has a duration of 5min, 3144 pixels across track and 4200 pixel along track (i.e., 175 VII scans of 24 lines each).

The selection of these specific orbit portions is driven by two main reasons:

1) The generation of AMV products, which requires two successive orbits covering at least one of the Poles.

2) The selected granules cover a variety of basic scenarios suitable to test the overall VII L2 processor, including

- Clear and cloudy scenes;

- Land, sea, and coastlines areas;

- Snow/ice covered areas;

- North polar areas;

- Day, twilight and night time illumination conditions.

The sensing start time and the corresponding sub-satellite point location for these granules is as below:

Date & sensing start time of granule (yyyy-mm-ddThh-mm-ss)	Orbit number	Latitude of sub-satellite point at sensing start (deg)	Longitude of sub-satellite point at sensing start (deg)	Comments
2007-09-12T09-58-40	1	34.20313028949097	160.7800001996788	Night time
2007-09-12T10-03-43	1	51.74795109821829	147.7061529421657	Night time
2007-09-12T10-08-45	1	68.71420166617192	147.6279557641480	Twilight
2007-09-12T10-13-48	1	81.18845898335753	90.36042145722878	Twilight
2007-09-12T10-18-50	1	71.71638720090539	15.51916611682842	Daylight
2007-09-12T10-23-53	1	55.00210900287367	359.3886376089423	Daylight
2007-09-12T11-39-30	2	32.35997280194758	142.3972009172483	Night time
2007-09-12T11-44-33	2	49.93366167610779	136.2466553230085	Night time
2007-09-12T11-49-35	2	67.00633551905976	124.3962487051299	Twilight
2007-09-12T11-54-38	2	80.65862019147546	76.48127952863224	Twilight
2007-09-12T11-59-40	2	73.32736588721794	353.4224031903536	Daylight
2007-09-12T12-04-43	2	56.79996561272922	335.07331898990606	Daylight

Figure 1 illustrates the ground track of the sub-satellite point.
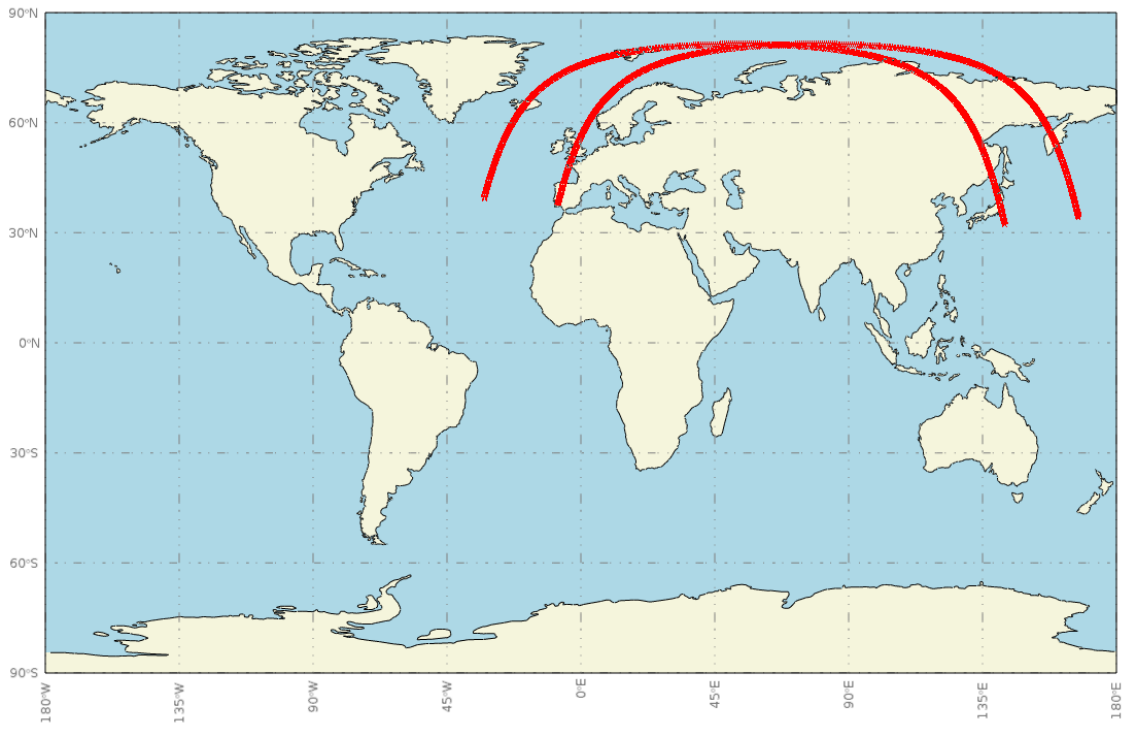
Figure 1: Illustration of the ground track of the EPS-SG sub-satellite point extracted from the METimage L2 granules selected for the OP reference TDP delivery V1.